Attorney's Docket No.: 12732-034001 / US4891

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Applicant: Koichiro Tanaka Art Unit: 2822

Serial No.: 09/842,797 Examiner: Maria F. Guerrero

Filed : April 27, 2001

Title : METHOD OF FABRICATING SEMICONDUCTOR DEVICE

## Mail Stop Amendment

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## REPLY TO ACTION OF NOVEMBER 23, 2004

Claims 1-52 are pending in the application, with claims 1-6, 31, 33, 34 and 36 being independent. Claims 1-6 have been amended and claims 31-52 have been withdrawn from consideration.

Claims 1-18 and 25-30 have been rejected as being unpatentable over Yamazaki (U.S. Patent No. 5,365,080) in view of Andra and admitted prior art.

With respect to claim 1 and its dependent claims, and as noted in the prior response, applicant requests reconsideration and withdrawal of this rejection because neither Yamazaki, Andra, the admitted prior art, nor any combination of the three describes or suggests forming two crystalline regions using the same laser beam. Instead, Yamazaki, which the rejection has cited for describing the formation of the two crystalline regions, describes forming a first crystalline region by irradiating with a first laser beam and forming a second crystalline region by irradiating with a second laser beam having a longer wavelength than the first laser beam. (See Yamazaki at col. 2, lines 20-35.) As neither Andra nor the admitted prior art would have provided motivation to modify the system of Yamazaki to use the same laser beam for both regions, applicant requests reconsideration and withdrawal of the rejection of claim 1 and its dependent claims for at least this reason. Applicant also notes that this argument does not appear to have been addressed in the "Response to Arguments" included at the end of the rejection.

In addition, and as also was noted in the prior response, applicant requests reconsideration and withdrawal of the rejection of claim 1 and its dependent claims because 03/24/2005 SPECIFFAIT OF CONTRACTOR AND APPROXIMATION OF THE AREA APPROXIMATION OF THE PRIOR OF

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suggests forming partially overlapping regions such as are recited in claim 1 on the upper surface of the semiconductor film. Yamazaki, which describes using two laser annealing steps, with the first step crystallizing a relatively shallow region 5 to 100 nm deep from the surface, and the second step crystallizing a relatively deep portion 50 to 1000 nm deep (see col. 4, line 51 to col. 5, line 6), is silent as to the overlap of different regions in a direction in which a laser moves. While the admitted prior art shows overlapping regions in Figs. 4A and 27C, the overlap is along the entirety of the first direction. Thus, in the admitted prior art, the first region overlaps with all of the second region along the first region, rather than only a portion of the second region along the first direction.

The "Response to Arguments" included at the end of the rejection addresses this argument by focusing on the "only a portion" language of the claim while ignoring the "along the first direction" language. Applicant does not necessarily disagree with the definition of "overlap" set forth in the rejection. Rather, what applicant disagrees with is that the "along the first direction" language of claim 1 is ignored by the rejection.

As set forth in claim 1, "the first region of the upper surface of the semiconductor film overlaps with only a portion of the second region of the upper surface along the first direction." Thus, along the edge of the second region extending in the first direction, the second region would extend beyond one or both ends of the first region. As has been previously discussed, such an arrangement in not described or suggested by Yamazaki, Andra, the admitted prior art, or any combination of the three. Instead, the admitted prior, for example, shows overlapping regions that overlap along the entirety of the first direction.

Independent claims 2-6 similarly recite using the same laser beam to form first and second crystalline regions, and that the first region of the upper surface of the semiconductor film overlaps with only a portion of the second region of the upper surface along the first direction. Accordingly, applicant requests reconsideration and withdrawal of the rejection of claims 2-6 and their dependent claims for the reasons discussed above with respect to claim 1.

Claims 19-24 have been rejected as being unpatentable over Yamazaki '080 in view of Andra, admitted prior art and Yamazaki (U.S. Patent No. 5,893,730). Applicant requests

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reconsideration and withdrawal of this rejection because Yamazaki '730 does not remedy the failure of the other references to describe or suggest the subject matter of the independent claims from which claims 19-24 depend.

Applicant submits that all claims are in condition for allowance.

A check in the amount of \$300.00 (\$120 for the one-month extension of time and \$180.00 for the Information Disclosure Statement fee) is enclosed. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 3/23/05

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